

PMC-EF2a

(2.0(42))

**U.S. DEPARTMENT OF ENERGY  
EERE PROJECT MANAGEMENT CENTER  
NEPA DETERMINATION**



RECIPIENT: Abengoa Solar Inc.

STATE: CO

**PROJECT TITLE :** Development of Molten-Salt Heat Transfer Fluid Technology for Parabolic Trough Solar Power Plants

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FC36-08GO18038	FC36-08GO18038	GFO-GO18038-002	GO18038

**Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:**

**CX, EA, EIS APPENDIX AND NUMBER:**

Description:

- A9** Information gathering (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.
- B3.6** Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).

Rational for determination:

Abengoa Solar Inc proposes to use federal funding for phase 2 of the continuation of NEPA award GFO-08-186. This NEPA determination is for site work that will take place at Abengoa's Lakewood, CO facility site (11500 W 13th Avenue). Since the original NEPA review, several tasks have been revised for Phase 2. Task 7 has been re-named: Molten-Salt Collector Analysis (dropped development), Task 8 has been replaced by: Process Development (new task, replaces thermocline TES development), Task 9 has been re-named as Task 10 - this is the Project Management task, & Task 9 has been added: Plant Performance and Economic Analysis (this is a new task).

This project will analyze and examine different technologies to develop concentrated solar power plants using molten salts for the heat transfer fluids. With higher operating temperatures, there is an increase in the corrosiveness of the containers holding the salts. Also analyzed will be the economic advantages of using molten salts vs. current available fluids. Prototype components and/or materials may be prepared and assembled within a 30,000 square foot warehouse located at this site. No toxic substances will be used and Abengoa Solar Inc. will follow all OSHA guidelines for manufacturing.

The applicant has submitted an R & D Questionnaire which thoroughly addresses the chemical and safety handling protocols.

This project includes information gathering and analysis; therefore a CX A9 & B3.6 applies.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

Eugene Brown 2/9/2011

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature: Kristin Kerwin  Date: 2/16/2011  
NEPA Compliance Officer

**FIELD OFFICE MANAGER DETERMINATION**

Field Office Manager review required

**NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:**

- Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

**BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :**

Field Office Manager's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Field Office Manager